

REMARKS

In the Office Action, claims 1-13 and 21 were rejected. The rejection of these claims is respectfully traversed, and support for the traversal is set forth below.

In the Office Action, the drawings also were objected to as failing to show every feature specified in the claims. The Office Action stated the structure recited in claim 11 as positioned along the base pipe must be shown or canceled from the claim. However, the recitation of a structure positioned along the base pipe is fully supported in the specification and figures. For example, in paragraph 0016 "structures such as transport tubes 22 or control lines 24 running longitudinally along base pipe 14" are discussed. Furthermore, Figure 3 illustrates such structures 24 and structures 26 extending along base pipe 14 and covered by mesh medium 12. Accordingly, the language of claim 11 is fully supported in the specification and illustrated in the figures, and the objection should be withdrawn.

Claims 1-8, 10-13 were rejected under 35 USC 103(a) as unpatentable over the Whitlock et al. reference, US Patent No.: 6,006,829, in view of the Mutzenberg et al. reference, US Patent No.: 4,250,172. This rejection is respectfully traversed.

The Whitlock et al. reference discloses a filter for use in subterranean environments. The filter includes an inner support member 10 and a filter body 20. Inner support member 10 is a hollow tubular member that permits fluid flow into its hollow center. (See column 3, lines 38-67). Filter body 20 includes at least one filtering layer 23. The at least one filtering layer 23 is illustrated as three adjacent filtering layers 23. (See column 5, lines 38-67). However, the reference does not disclose or suggest interlocking the layers or interlocking of the layers with fibers extending from one layer to another.

The Mutzenberg et al. reference is directed to a needled fiber mat containing a granular agent for use in processing industries to treat liquid and gaseous substances by contacting them with the solid granular agents. At least one layer of granular sorption agent is disposed between at least two layers of fibrous mat and held in place when the layers are interlocked by needling.

(See column 1, lines 63-66). In the example provided, a mat has three layers of textile fibers with two layers of granular agent sandwiched in between. Unwoven fibers are transported by needling through the layers of granular agent for interlocking with other layers of textile fibers. (See column 2, lines 20-31).

The Whitlock et al. reference and the Mutzenberg et al. reference do not support the rejection under 35 USC 103(a), because there is no suggestion in either reference that would lead one of ordinary skill in the art at the time of the present invention to combine the dissimilar teachings. The Mutzenberg et al. reference describes needling in conjunction with forming a mat for holding a granular agent. There is no teaching or suggestion in this reference, or the Whitlock et al. reference, to utilize a needling technology in the interlocking of mesh medium layers that are mounted about a base pipe and used as a screen in subterranean wells, as recited in pending independent claim 1. In the Office Action, page 6, the Examiner stated the motivation to combine the references can be found in column 1, lines 48-56 of the Mutzenberg et al. reference which states:

"Fibrous mats have also been used to support granular agents. Such mats, however, have been impregnated with a powdered agent that is retained by means of a sticky or gluey coating applied to the fibers. This has the serious disadvantage of reducing the contact-area of the agent wherever the agent is covered by the sticky or gluey coating.

It is an object of this invention, therefore, to provide a mechanically stable mat containing at least one layer of granular sorption agent which is easily replaced;"

This passage merely describes the primary purpose of the Mutzenberg et al. screen which is to support granular agents between fiber layers. The teaching provides no motivation for the interlocking of mesh medium layers that are mounted about a base pipe and used as a screen in subterranean wells. Furthermore, the teaching found in column 1, lines 48-56 of the Mutzenberg et al. reference demonstrates that this particular reference is outside of the applicant's field of endeavor and that the reference is not reasonably pertinent to the particular problem with which the applicant was concerned. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

Claims 2-8, 10, 12 and 13 ultimately depend from independent claim 1 and also are patentable because the combination of cited references is improper and no prima facie case of obviousness has been established. However, even if further evidence of a suggestion to combine the references could be provided, the references still fail to disclose numerous elements in the subject dependent claims. For example and without limitation, there is no disclosure or suggestion of:

Claim 5 - "in which the mesh medium is a tubular";

Claim 6 - depending from claim 5 and reciting that the tubular is "seamless";

Claim 8 - determining the porosity of the mesh medium "by the thickness of the fiber strands";

Claim 11 - comprising a "structure positioned along the base pipe, the mesh medium covering the structure";

Claim 12 - a mesh medium that "covers only a circumferential portion of the base pipe, the mesh medium having ends secured directly to the base pipe"; and

Claim 13 - a mesh medium that "covers only a circumferential portion of the base pipe".

In the Office Action, page 3, support for the rejection of claims 5 and 6 is cited by the Examiner at column 4, lines 47-54 of the Whitlock et al. reference which states:

"The filter body 20 contains a filter medium which filters a well fluid to form a filtrate. The filter body 20 may have any structure capable of performing the intended removal of substances from the fluid being filtered. For example, it may be a prepacked body, a wire-wrapped body, a sintered metal unitary body, a wire mesh body, a resin-consolidated mass of particles, or any other type of filter body."

The passage relied on by the Examiner states that the filter body 20 can be "a wire mesh body" and lists other entirely different types of filters. However, the passage does not disclose or suggest the mesh medium is a tubular or that the tubular is seamless, as recited in the rejected claims 5 and 6. Support for the rejection of claims 8 and 10 does not appear to be based on the references, but rather on a general assertion in the Office Action that the "porosity of the material could be directly determined by the thickness and diameter of the strands as the size and number of openings in the material would be directly proportional to the thickness and diameter of the strands." (See page 3, Office Action). However, Applicant earnestly submits the rejection of claims must be based on prior art rather than on general assertions. In rejecting claim 11, the Whitlock et al. reference is relied on as including "a structure 21 positioned over the base pipe where the mesh medium covers the structure." However, reference numeral 21 of the Whitlock et al. reference is used to label an inner drainage layer of the filter body itself and does not constitute a structure positioned along the base pipe with a mesh medium covering the structure, as recited in claim 11.

Claim 9 was rejected under 35 USC 103(a) as unpatentable over the Whitlock et al. reference in view of the Mutzenberg et al. reference and further in view of the Schulte reference, US Patent No.: 6,237,780. Claim 9 ultimately depends from independent claim 1 and is patentable because no prima facie case of obviousness has been established with respect to independent claim 1. The Schulte reference provides no further teaching or suggestion for combining the teachings of the Whitlock et al. reference and the Mutzenberg et al. reference.

Claims 12 and 13 were rejected under 35 USC 103(a) as unpatentable over the Whitlock et al. reference in view of the Mutzenberg et al. reference and further in view of the Castano-Mears et al. reference, US Patent No.: 6,457,518. Claims 12 and 13 ultimately depend from independent claim 1 and are patentable because no prima facie case of obviousness has been established with respect to independent claim 1. The Castano-Mears et al. reference provides no further teaching or suggestion for combining the teachings of the Whitlock et al. reference and the Mutzenberg et al. reference. Additionally, even if the cited references could be combined, the combination would fail to disclose all of the elements of the subject claims. For example, the

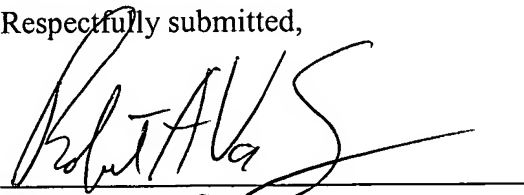
cited references, taken alone or in combination, would not disclose or suggest a mesh medium "having ends secured directly to the base pipe" as recited in claim 12.

Claim 21 was rejected under 35 USC 103(a) as unpatentable over the Whitlock et al. reference in view of the Mutzenberg et al. reference and the Bayne et al. reference, US 2002/0007948. This rejection is respectfully traversed. As discussed above with respect to claim 1, no prima facie case of obviousness has been established, because the requisite suggestion to combine references is missing. However, even if further evidence of the requisite suggestion to combine were to be found, the combination of these three references still fails to disclose elements of pending claim 21.

The Bayne et al. reference describes a well system having auxiliary conduits that can be used in gravel packing applications. The conduits 212 can be disposed between a shroud assembly 200 and gravel pack screens 214. (See paragraph 0031). Additionally, the conduits 212 can include a fiber optic cable within or outside of the conduit. (See paragraph 0032). However, the reference does not disclose a mesh medium. The Bayne et al. reference completely fails to describe or suggest a mesh screen apparatus comprising "a piece of equipment having at least one intelligent completion device which the mesh medium at least partially encloses" as recited in amended, independent claim 21. In fact, none of the references discloses or suggest at least partially enclosing an intelligent completion device to prevent infiltration of particulates into the equipment. Furthermore, there is no teaching or motivation provided in the references for selecting individual elements from very dissimilar references/devices in an attempt to create the apparatus recited in claim 21. Accordingly, the rejection of claim 21 should be withdrawn.

In view of the foregoing remarks, the pending claims are believed patentable over the cited references. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert A. Van Someren', written over a horizontal line.

Robert A. Van Someren
Reg. No. 36,038

Date: May 5, 2006

PO Box 2107
Cypress, TX 77410-2107
Voice: (281) 373-4369